

At A Glance

New to 6th Grade:

- Unit rate (6.RP.3b)
- Measurement unit conversions (6.RP.3d)
- Number line – opposites and absolute value (6.NS.6a, 6.NS.7c)
- Vertical and horizontal distances on the coordinate plane (6.NS.8)
- Distributive property and factoring (6.EE.3)
- Introduction of independent and dependent variables (6.NS.9)
- Volume of right rectangular prisms with fractional edges (6.G.2)
- Surface area with nets (only triangle and rectangle faces) (6.G.4)
- Dot plots, histograms, box plots (6.SP.4)
- Statistical variability (M.A.D. and Interquartile Range) (6.G.5c)

Moved from 6th Grade:

- Multiplication of fractions (moved to 5th grade)
- Scientific notation (moved to 8th grade)
- Transformations (moved to 8th grade)
- Area and circumference of circles (moved to 7th grade)
- Probability (moved to 7th grade)
- Two-step equations (moved to 7th grade)
- Solving one- and two-step inequalities (moved to 7th grade)

Notes:

- Topics may appear to be similar between the CCSS and the 2003 NCSCOS; however, the CCSS may be presented at a higher cognitive demand.
- Equivalent fractions, decimals and percents are in 6th grade but as conceptual representations (see 6.RP.2c). Use of the number line (building on elementary foundations) is also encouraged.
- For more detailed information, see the crosswalks.
- 6.NS. 2 is the final check for student understanding of place value.
- **For more detailed information, see the crosswalks**
(<http://www.ncpublicschools.org/acre/standards/common-core-tools>)

Instructional considerations for CCSS implementation in 2012 – 2013:

- Multiplication of fractions (reference 5.NF.3, 5.NF.4a, 5.NF.4b, 5.NF.5a, 5.NF.5b, 5.NF.6)
- Division of whole number by unit fractions and division of unit fractions by whole numbers (reference 5.NF.7a, 5.NF.7b, 5.NF.7c)
- Multiplication and division of decimals (reference 5.NBT.7)
- Volume with whole number (reference 5.MD.3, 5.MD.4, 5.MD.5)
- Classification of two-dimensional figures based on their properties (reference 5.G.3, 5.G.4)

At A Glance

New to 7th Grade:

- Constant of proportionality (7.RP.2b)
- Percent of error (7.RP.3)
- Factoring to create equivalent expressions (7.EE.1)
- Triangle side lengths (7.G.2)
- Area and circumference of circles (7.G.4)
- Angles (supplementary, complementary, vertical) (7. G.5)
- Surface area and volume of pyramids (7.G.6)
- Probability (7.SP.5 – 7.SP.8)

Moved from 7th Grade:

- Similar and congruent polygons (moved to 8th grade)
- Surface area and volume of cylinders (moved to 8th grade – volume only)
- Creation of box plots and histograms (moved to 6th grade – 7th grade continues to compare)
- Linear relations and functions (y-intercept moved to 8th grade)
- Views from 3-Dimensional figures (removed from CCSS)
- Statistical measures (moved to 6th grade)

Notes:

- Topics may appear to be similar between the CCSS and the 2003 NCSCOS; however, the CCSS may be presented at a higher cognitive demand.
- Proportionality in 7th grade now includes identifying proportional relationships from tables and graphs; writing equations to represent proportional relationships.
- Using a number line for rational number operations is emphasized in CCSS.
- **For more detailed information, see the crosswalks**
(<http://www.ncpublicschools.org/acre/standards/common-core-tools>)

Instructional considerations for CCSS implementation in 2012 – 2013:

- Work with ratio tables and relationships between tables, graphs and equations; focus on the multiplicative relationship between and within ratios (6.RP.3a, 6.RP.3b)
- Unit conversions within systems (6.RP.3d)
- Opposites and absolute value (6.NS.6a, 6.NS.7c)
- Distributive property with area models and factoring (6.EE.3) – prerequisite to 7.EE.1
- Volume of rectangular prisms (6.G.2) and surface area (6.G.4) – prerequisite to 7.G.6
- Mean Absolute Deviation (6.SP.5c) – prerequisite to 7.SP.3 and foundational to standard deviation in Math One

At A Glance

New to 8th Grade:

- Integer exponents with numerical bases (8.EE.1)
- Scientific notation, including multiplication and division (8.EE.3 and 8.EE.4)
- Unit rate as slope (8.EE.5)
- Qualitative graphing (8.F.5)
- Transformations (8.G.1 and 8.G.3)
- Congruent and similar figures (characterized through transformations) (8.G.2 and 8.G.4)
- Angles (exterior angles, parallel cut by transversal, angle-angle criterion) (8.G.5)
- Finding diagonal distances on a coordinate plane using the Pythagorean Theorem (8.G.8)
- Volume of cones, cylinders and spheres (8.G.9)
- Two-way tables (8.SP.4)

Moved from 8th Grade:

- Indirect measurement (embedded throughout)
- Linear inequalities (moved to high school)
- Effect of dimension changes (moved to high school)
- Misuses of data (embedded throughout)
- Function notation (moved to high school)
- Point-slope form (moved to high school) and standard form of a linear equation (not in CCSS)

Notes:

- Topics may appear to be similar between the CCSS and the 2003 NCSCOS; however, the CCSS may be presented at a higher cognitive demand.
- **For more detailed information, see the crosswalks**
(<http://www.ncpublicschools.org/acre/standards/common-core-tools>)

Instructional considerations for CCSS implementation in 2012 – 2013:

- Solving proportions with tables, graphs, equations (7.RP.2a, 7.RP.2b, 7.RP.2c, 7.RP.2d) – prerequisite to 8.EE.5
- Mean Absolute Deviation (6.SP.5c) – foundational to standard deviation in Math One
- Identifying the conditions for lengths to make a triangle (7.G.2)
- Supplementary, complementary, vertical and adjacent angles (7.G.5) – prerequisite to 8.G.5
- Finding vertical and horizontal distances on the coordinate plane (6.NS.3) – foundational to 8.G.8)

At A Glance

8th Grade to Math 1

Instructional considerations for CCSS implementation in 2012 – 2013:

- Integer Exponents (8.EE.1)
- Multiplication and Division with Scientific Notation (8.EE.4)
- Solving Systems by Substitution (8.EE.8)
- Volume of Pyramids, Cones and Spheres (7.G.6, 8.G.9)
- Surface Area of Pyramids (6.G.4, 7.G.6)
- Angles (7.G.5, 8.G.5)
- Using Pythagorean Theorem in 3-D Figures (8.G.7)
- Mean Absolute Deviation (6.SP.5c)
- Two-way Tables (8.SP.4)
- Qualitative Graphs (8.F.5)
- Graphing Proportional Relationships (7.RP.2a, b, c, d, 8.EE.5)